

US Serial No. 10/524377
Page 2 of 22

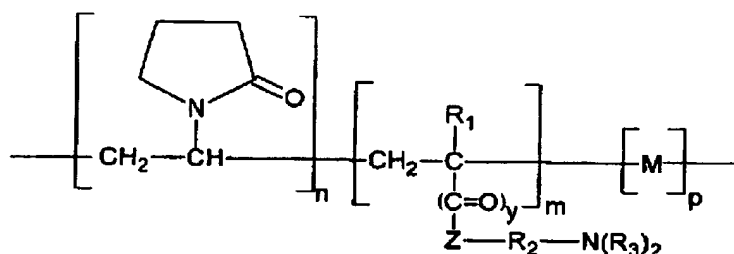
RECEIVED
CENTRAL FAX CENTER

MAY 12 2008

In the Claims:

1.(currently amended) A composition comprising:

- (a) at least one organic acid;
 - (b) optionally, at least one anionic surfactant;
 - (c) at least one polymer capable of forming a complex with (a) at least one of organic acid wherein the at least one polymer is selected from the group
- (1) ~~polymer having the formula~~



~~in which n represents from 20 to 99 and preferably from 40 to 90 mol %; m represents from 1 to 80 and preferably from 5 to 40 mol %; p represents 0 to 50 mol; (n+m+p=100); R₁ represents H or CH₃; y represents 0 or 1; Z is selected from O or NH; R₂ represents C_xH_{2x} where x is 2 to 18; each of R₃ independently represents hydrogen or C₁ to C₄ alkyl; and M is a vinyl or vinylidene monomer copolymerisable with vinyl pyrrolidone other than the monomer identified in []_m;~~

- ~~(2) vinylpyrrolidone/vinyl acetate copolymer;~~
- ~~(3) vinylpyrrolidone/vinyl caprolactam/ammonium derivative terpolymer, where the ammonium derivative monomer has 6 to 12 carbon atoms and is selected from dialkylamino alkyl methacrylamides, dialkylamino alkyl methacrylate, and dialkylamino alkyl acrylate;~~

US Serial No. 10/524377
Page 3 of 22

(4) ~~poly (vinyl pyrrolidone);~~

(5) ~~vinyl pyrrolidone/vinyl caprolactam copolymer~~

(6) vinyl pyrrolidone/acrylic acid (and its esters) or methacrylic acid (and its esters) copolymer; and

(7) ~~a copolymer of Monomer A and Monomer B wherein Monomer A is of the formula $R^1-CH=CH-R^2$ and wherein Monomer B is of the formula $R^3-C(R^1)=C(R^2)-R^4$;~~

~~wherein R^1 and R^2 are independently selected from hydrogen; hydroxy; halogen; carboxy; sulfo; phenyl; phenoxy; C_{1-6} alkyl; C_{1-6} alkoxy; C_{1-6} aminoalkyl; C_{1-6} haloalkyl wherein the halogen is selected from chlorine, bromine, iodine, and fluorine; C_{1-6} alkylphenyl; amino and C_{1-6} alkylamino, R^3 is an acidic group or a derivative thereof and R^4 is a group selected from any of the definitions given hereinbefore for R^1 , R^2 or R^3 , with the proviso that neither monomer A nor monomer B is an ester having a quaternary ammonium compound,~~

(d) optionally, at least one organic solvent;

(e) optionally, at least one propellant;

(f) water; and

optionally, one or more further conventional constituents such as: pH buffering agents, perfumes, perfume carriers, colorants, hydrotropes, viscosity modifying agents, further germicides, fungicides, anti-oxidants, and anti-corrosion agents wherein the composition exhibits residual antimicrobial performance after at least 1 rinse with water.

2.(original) The composition according to claim 1 wherein the at least one organic acid is selected from a compound having the formula:



wherein R is hydrogen, lower alkyl; substituted lower alkyl; hydroxy lower alkyl; carboxy lower alkyl; carboxy, hydroxy lower alkyl; carboxy, halo lower alkyl; carboxy, dihydroxy lower alkyl; dicarboxy, hydroxy lower alkyl; carboxy lower alkenyl; dicarboxy lower alkenyl; phenyl; substituted phenyl and mixtures

US Serial No. 10/524377
Page 4 of 22

thereof, wherein substituted lower alkyl is substituted by one or more groups consisting of halogen, hydroxyl, amino, thiol, nitro, and cyano.

- 3.(original) The composition according to claim 2 wherein the organic acid is selected from the group citric, malic, succinic, lactic, glycolic, fumaric, tartaric, and formic acids and mixtures thereof.
- 4.(cancelled)
- 5.(withdrawn) The composition according to claim 1 wherein the polymer is (1).
- 6.(withdrawn) The composition according to claim 5 wherein p is 0.
- 7.(withdrawn) The composition according claim 5 wherein y is 1.
- 8.(withdrawn) The composition according to claim 5 wherein x is 2.
- 9.(withdrawn) The composition according to claim 5 wherein each of R³ is methyl.
- 10.(withdrawn) The composition according to claim 1 wherein the polymer is (2).
- 11.(withdrawn) The composition according to claim 1 wherein the polymer is (3).
- 12.(withdrawn) The composition according to claim 11 wherein the ammonium derivative is dialkylamino alkyl methacrylate.
- 13.(withdrawn) The composition according to claim 1 wherein the polymer is (4).
- 14.(withdrawn) The composition according to claim 1 wherein the polymer is (5).

US Serial No. 10/524377
Page 5 of 22

- 15.(previously presented) The composition according to claim 1 wherein the polymer is (6).
- 16.(original) The composition according to claim 15 wherein the polymer is a vinyl pyrrolidone/acrylic acid copolymer.
- 17.(withdrawn) The composition according to claim 1 wherein the polymer is (7).
- 18.(withdrawn) The composition according to claim 17 wherein Monomer A is selected from C₁₋₆ alkyl vinyl ethers and C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.
- 19.(withdrawn) The composition according to claim 18 wherein Monomer A is C₁₋₆ alkyl vinyl ethers.
20. (deleted)
- 21.(withdrawn) The composition according to claim 18 wherein Monomer A is selected from C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.
- 22.(deleted)
- 23.(withdrawn) The composition according to claim 18 wherein Monomer B is maleic acid or derivative thereof.
- 24.(withdrawn) The composition according to claim 23 wherein the copolymer is vinyl methyl ether/maleic acid alkyl half ester wherein alkyl is C₁₋₆ alkyl.
- 25.(previously presented) The composition according to claim 1 wherein the (a) organic acid is present in an amount of from about 0.01 to about 10%wt.

US Serial No. 10/524377
Page 6 of 22

26.(cancelled)

27.(previously presented) The composition according to claim 1 wherein (c) polymer is present in an amount of from about 0.01 to about 10%wt.

28.(cancelled)

29.(previously presented) The composition according to claim 1 wherein (b) at least one anionic surfactant is present.

30.(cancelled)

31.(previously presented) The composition according to claim 29 wherein the anionic surfactant is selected from alcohol sulfates and sulfonates, alkyl sulfates, alkylaryl sulfates, alkyl sulfonates, and alkylaryl sulfonates.

32.(previously presented) The composition according to claim 29 wherein (b) anionic surfactant is present in an amount of from about 0.01 to about 10%wt.

33.(cancelled)

34.(previously presented) The composition according to claim 1 wherein the ratio of (a):(b):(c) ranges from about 1:1:1 to about 6:2:1.

35.(cancelled)

36.(cancelled)

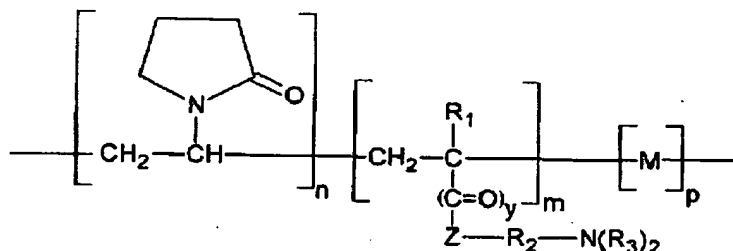
US Serial No. 10/524377
Page 7 of 22

- 37.(previously presented) The composition according to claim 1 wherein (b) at least one anionic surfactant is not present.
- 38.(previously presented) The composition according to claim 1 wherein at least one organic solvent is present.
- 39.(currently amended) A composition according to claim 1 comprising
- (a) at least one organic acid selected from a compound having the formula:
- $$\text{R--COOH}$$
- wherein R is hydrogen, lower alkyl; substituted lower alkyl; hydroxy lower alkyl; carboxy lower alkyl; carboxy, hydroxy lower alkyl; carboxy, halo lower alkyl; carboxy, dihydroxy lower alkyl; dicarboxy, hydroxy lower alkyl; carboxy lower alkenyl; dicarboxy lower alkenyl; phenyl; substituted phenyl and mixtures thereof, wherein substituted lower alkyl is substituted by one or more groups consisting of halogen, hydroxyl, amino, thiol, nitro, and cyano;
- (b) optionally, at least one anionic surfactant selected from alcohol sulfates and sulfonates, alcohol phosphates and phosphonates, alkyl ester sulfates, alkyl diphenyl ether sulfonates, alkyl sulfates, alkyl ether sulfates, sulfate esters of an alkylphenoxy polyoxyethylene ethanol, alkyl monoglyceride sulfates, alkyl sulfonates, alkyl ether sulfates, alpha-olefin sulfonates, beta-alkoxy alkane sulfonates, alkyl ether sulfates, ethoxylated alkyl sulfonates, alkylaryl sulfonates, alkylaryl sulfates, alkyl monoglyceride sulfonates, alkyl carboxylates, alkyl ether carboxylates, alkyl alkoxy carboxylates having 1 to 5 moles of ethylene oxide, alkylpolyglycolethersulfates (containing up to 10 moles of ethylene oxide), sulfosuccinates, octoxynol or nonoxynol phosphates, taurates, fatty taurides, fatty acid amide polyoxyethylene sulfates, acyl glycerol sulfonates, fatty oleyl glycerol sulfates, alkyl phenol ethylene oxide ether sulfates, paraffin sulfonates, alkyl phosphates, isethionates, N-acyl taurates, alkyl succinamates and sulfosuccinates, alkylpolysaccharide sulfates, alkylpolyglucoside sulfates, alkyl polyethoxy carboxylates, and sarcosinates or mixtures thereof;

US Serial No. 10/524377
Page 8 of 22

(c) at least one polymer capable of forming a complex with (a) at least one of organic acid selected from the group

(1) ~~polymer having the formula~~



~~in which n represents from 20 to 99 and preferably from 40 to 90 mol %, m represents from 1 to 80 and preferably from 5 to 40 mol %; p represents 0 to 50 mol, (n+m+p=100); R₁ represents H or CH₃; y represents 0 or 1; Z is selected from O or NH; R₂ represents C_xH_{2x} where x is 2 to 18; each of R₃ independently represents hydrogen or C₁ to C₄ alkyl; and M is a vinyl or vinylidene monomer copolymerisable with vinyl pyrrolidone other than the monomer identified in []_m;~~

~~(2) vinylpyrrolidone/vinyl acetate copolymer,~~

~~(3) vinylpyrrolidone/vinyl caprolactam/ammonium derivative terpolymer, where the ammonium derivative monomer has 6 to 12 carbon atoms and is selected from dialkylamino alkyl methacrylamides, dialkylamino alkyl methacrylate, and dialkylamino alkyl acrylate,~~

~~(4) poly (vinyl pyrrolidone),~~

~~(5) vinyl pyrrolidone/vinyl caprolactam copolymer,~~

(6) vinyl pyrrolidone/acrylic acid (and its esters) or methacrylic acid (and its esters) copolymer; and

(7) a copolymer of Monomer A and Monomer B wherein Monomer A is of the formula R¹-CH=CH-R² and wherein Monomer B is of the formula R³-C(R¹)=C(R²)-R⁴;

US Serial No. 10/524377
Page 9 of 22

~~wherein R^1 and R^3 are independently selected from hydrogen, hydroxy, halogen, carboxy, sulfo, phenyl, phenoxy, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} aminoalkyl, C_{1-6} haloalkyl wherein the halogen is selected from chlorine, bromine, iodine, and fluorine, C_{1-6} alkylphenyl, amino and C_{1-6} alkylamino, R^2 is an acidic group or a derivative thereof and R^4 is a group selected from any of the definitions given hereinbefore for R^1 , R^2 or R^3 , with the proviso that neither monomer A nor monomer B is an ester having a quaternary ammonium compound;~~

- (d) optionally, at least one organic solvent;
- (e) optionally, at least one propellant;
- (f) water; and

optionally, one or more further conventional constituents such as: pH buffering agents, perfumes, perfume carriers, colorants, hydrotropes, viscosity modifying agents, further germicides, fungicides, anti-oxidants, and anti-corrosion agents
wherein the composition exhibits residual antimicrobial performance after at least 1 rinse with water.

40. – 157. (cancelled)

158.(previously presented) The composition according to claim 1 which provides residual antimicrobial activity to a surface to which the composition is applied.

159. (previously presented) The composition according to claim 1 which the residual antimicrobial activity is against viruses.

160.(previously presented) A personal care product selected from antiseptics, hand soaps and lotions comprising a composition according to claim 1.

161.(previously presented) A laundry treatment product or fabric treatment product comprising a composition according to claim 1.

US Serial No. 10/524377
Page 10 of 22

- 162.(previously presented) A dishwashing product or a rinse aid product for dishwashing comprising a composition according to claim 1.
- 163.(previously presented) The composition according to claim 1 wherein the composition is incorporated into a wipe.
- 164.(previously presented) The composition according to claim 1 wherein the composition is incorporated into a hard surface disinfectant or hard surface cleaning product.
- 165.(withdrawn) A process for treating a surface which comprises the step of providing the composition according to claim 1, and applying an effective amount of the composition to the surface requiring such treatment.
- 166.(withdrawn) The process according to claim 165 wherein the surface is a hard surface, a fabric, or skin.